CLAIMS

What is claimed is:

1. An antagonist that specifically binds to a denatured collagen or collagens but binds to the native triple helical form of each of said collagen or collagens with substantially reduced affinity.

2. The antagonist of claim 1 wherein said reduced affinity is about 3 fold lower than that for said denatured collagen.

3. The antagonist of claim 1 wherein said reduced affinity is about 5 fold lower than that for said denatured collagen.

4. The antagonist of claim 1 wherein said reduced affinity is about 10 fold lower than that for said denatured collagen.

5. The antagonist of claim 1 wherein said antagonist inhibits angiogenesis.

6. The antagonist of claim 1 wherein said denatured collagen is denatured collagen type-I, denatured collagen type-II, denatured collagen type-III, denatured collagen type-IV or denatured collagen type-V.

7. The antagonist of claim 6 wherein said denatured collagen is denatured collagen type-I.

8. The antagonist of claim 6 wherein said denatured collagen is denatured collagen type-I and denatured collagen type-IV.

9. The antagonist of claim 7 wherein said denatured collagen is denatured collagen type-II, denatured collagen type-III and denatured collagen type-V.

10. The antagonist of claim 6 wherein said antagonist is a monoclonal antibody.

11. The antagonist of claim 8 wherein said monoclonal antibody is a monoclonal antibody having the binding specificity of monoclonal antibody HUI77, HUIV26 or XL313.

12. The antagonist of claim 6 wherein the antagonist is a polyclonal antibody.

13. The antagonist of claim 6 wherein the antagonist is a polypeptide, a linear peptide or a cyclic peptide.

14. The antagonist of claim 6 wherein the antagonist is a non-peptidic compound.

15. The antagonist of claim 6 wherein the antagonist is an oligonucleotide.

16. The antagonist of claim 6 wherein the antagonist is a humanized or chemically modified monoclonal antibody.

17. The antagonist of claim 6 wherein the antagonist is a fragment of a monoclonal antibody.

18. The antagonist of claim 6 wherein the antagonist is conjugated to cytotoxic or cytostatic agents.

19. A method of inhibiting angiogenesis in a tissue comprising administering the antagonist of any one of claims 1-17.

20. The method of claim 19 wherein said antagonist is administered intravenously, transdermally, intrasynovially, intramuscularly, intratummorally, intraocularly, intranasally, intrathecally, topically or orally.

21. The method of claim 19 wherein said antagonist is administered in conjunction with chemotherapy.

22. The method of claim 19 wherein said antagonist is administered in conjunction with radiation.

23. The method of claim 19 wherein the tissue is inflamed and angiogenesis is occurring.

24. The method of claim 23 wherein the tissue is present in a mammal.

25. The method of claim 24 wherein the tissue is arthritic, ocular, retinal or a hemangioma.

26. A method of inhibiting tumor growth or metastasis in a tissue comprising administering the antagonist of any one of claims 1-17.

27. The method of claim 26 wherein said antagonist is administered intravenously, transdermally, intrasynovially, intramuscularly, intratumorally, intraocularly, intranasally, topically or orally.

28. The method of claim 26 wherein said antagonist is administered in conjunction with chemotherapy.

29. The method of claim 26 wherein said antagonist is administered in conjunction with radiation.

30. The method of claim 26 wherein the tumor or metastasis is a melanoma, carcinoma, sarcoma, fibrosarcoma, glioma or astrocytoma.

31. A method of inhibiting psoriasis, macular degeneration, or restenosis in a tissue by administering the antagonist of any on of claims 1-17.

32. The method of claim 31 wherein said antagonist is administered intravenously, transdermally, intrasynovially, intramuscularly, intratummorally, intraocularly, intranasally, intrathecally, topically or orally.

33. The method of claim 31 wherein administering the antagonist is in conjunction with chemotherapy.

34. The method of claim 31 wherein administering the antagonist is in conjunction with radiation.

35. A method of detecting angiogenesis in a tissue by contacting the antagonist of any one of claims 1-17 with said tissue.

36. The method of claim 35 wherein said tissue is *ex vivo*.

37. The method of claim 35 wherein said tissue is *in vivo* and said antagonist is administered intravenously, transdermally, intrasynovially, intramuscularly, intratummorally, intraocularly, intranasally, intrathecally, topically or orally.

38. The method of claim 35 wherein said antagonist is conjugated to a fluorochrome, radioactive tag, paramagnetic heavy metal, diagnostic dye or enzyme.

39. A method of detecting tumors or tumor invasion in a tissue by administering the antagonist of any one of claims 1-17.

40. The method of claim 39 wherein said tissue is *ex vivo*.

41. The method of claim 39 wherein said tissue is *in vivo* and said antagonist is administered intravenously, transdermally, intrasynovially, intramuscularly, intratummorally, intraocularly, intranasally, intrathecally, topically or orally.

42. The method of claims 39 wherein said antagonist is conjugated to a fluorochrome, radioactive tag, paramagnetic heavy metal or diagnostic dye.

43. A method for screening for denatured collagen antagonists comprising:

a) providing a putative antagonist;

b) measuring said putative antagonist's first affinity for a denatured collagen selected from the group consisting of collagens types I, II, III, IV and V;

c) measuring said putative antagonist's second affinity for a native collagen selected from the group consisting of collagens types I, II, III, IV and V, wherein said native collagen selected is the native form of the denatured collagen selected;

d) selecting said putative antagonist as a denatured collagen antagonist if said second affinity is substantially less than said first affinity.

44. The method of claim 43 wherein said putative antagonist is a non-peptidic compound.

45. The method of claim 44 wherein said non-peptidic compound is a small organic compound.

46. The method of claim 44 wherein said non-peptidic compound is an oligonucleotide.

47. The method of claim 43 wherein said putative antagonist is a polypeptide, a linear peptide or a cyclic peptide.

48. The method of claim 43 wherein said putative antagonist is an antibody.

49. The method of claim 48 wherein said antibody is monoclonal.

50. The method of claim 48 wherein said antibody is polyclonal.

51. The method of claim 43 wherein said first and said second affinities are measured by an enzyme linked immunosorbent assay.

52. The method of claim 43 wherein said second affinity is about 3 times less than said first affinity.

53. The method of claim 43 wherein said second affinity is about 5 times less than said first affinity.

54. The method of claim 43 wherein said second affinity is about 10 times less than said first affinity.

55. A method for screening for denatured collagen antagonists comprising selecting an antagonist for the ability to compete with an antagonist of claim 11 for binding an epitope in denatured collagen.

~~56. An peptide comprising a sequence encoding an epitope recognized by an antagonist of claim 1.~~

57. The peptide of claim 56 wherein said antagonist is a monoclonal antibody.

58. The peptide of claim 57 wherein said antibody is HUI77, HUIV26 or XL313.

59. The peptide of claim 58 wherein said peptide is SEQ ID NO: 12.

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